WEST Search History

DATE: Wednesday, June 05, 2002

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DB=USPT,PGPB; PLUR=YES; OP=ADJ			
L8	((aqueous phase) with (anti-oxidant or antioxidant)) and L3	2	L8
L7	((aqueous phase) s (anti-oxidant or antioxidant)) and L3	0	L7
L6	((aqueous phase) adj5 (anti-oxidant or antioxidant)) and L3	0	L6
L5	((aqueous phase) adj5 antioxidant) and L3	0	L5
L4	(aqueous phase) adj5 oxidant and L3	0	L4
L3	L2 and (aqueous phase)	583	L3
L2	(antioxidant or anti-oxidant) and L1	3616	L2
L1	aptam$ or antisense or ribozy$ or oligonucl$	33329	L1

END OF SEARCH HISTORY

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NEWS 2	Jan 25	BLAST(R) searching in REGISTRY available in STN on the Web
NEWS 3	Jan 29	FSTA has been reloaded and moves to weekly updates
NEWS 4	Feb 01	DKILIT now produced by FIZ Karlsruhe and has a new update frequency
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NEWS 6	Mar 08	Gene Names now available in BIOSIS
NEWS 7	Mar 22	TOXLIT no longer available
NEWS 8	Mar 22	TRCTHERMO no longer available
NEWS 9	Mar 28	US Provisional Priorities searched with P in CA/CAplus and USPATFULL
NEWS 10	Mar 28	LIPINSKI/CALC added for property searching in REGISTRY
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NEWS 16	Apr 22	Records from IP.com available in CAPLUS, HCAPLUS, and ZCAPLUS
NEWS 17	Apr 22	BIOSIS Gene Names now available in TOXCENTER
NEWS 18	Apr 22	Federal Research in Progress (FEDRIP) now available
NEWS 19	May 31	PCTFULL to be reloaded. File temporarily unavailable.
NEWS 20	Jun 03	New e-mail delivery for search results now available

NEWS EXPRESS	February 1 CURRENT WINDOWS VERSION IS V6.0d, CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP), AND CURRENT DISCOVER FILE IS DATED 05 FEBRUARY 2002
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=> FIL BIOSIS MEDLINE SCISEARCH CA
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=> s aptamer or antisense or oligo? or ribozyme
L1      703430 APTAMER OR ANTISENSE OR OLIGO? OR RIBOZYME

=> s antioxidant? or anti-oxidant or desulfur? or de-sulfur? or cysteine or
glutathione or (?lipoic acid) or (2-mercapto-5-benzimidizole) or
(2-mercaptoethanesulfonic)
L2      637632 ANTIOXIDANT? OR ANTI-OXIDANT OR DESULFUR? OR DE-SULFUR? OR CYSTE
               INE OR GLUTATHIONE OR (?LIPOIC ACID) OR (2-MERCAPTO-5-BENZIMIDIZ
               OLE) OR (2-MERCAPTOETHANESULFONIC)

=> s phas? or multiphas? or multi-phas? or biphas? or bi-phas?
L3     3053885 PHAS? OR MULTIPHAS? OR MULTI-PHAS? OR BIPHAS? OR BI-PHAS?

=> s l1 and l2 and l3
L4          822 L1 AND L2 AND L3

=> d ti 1-10 l4

L4   ANSWER 1 OF 822  BIOSIS  COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI   The plant-specific function of 2-Cys peroxiredoxin-mediated detoxification
     of peroxides in the redox-hierarchy of photosynthetic electron flux.

L4   ANSWER 2 OF 822  BIOSIS  COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI   Site-directed mutagenesis of tyrosine 118 within the central constriction
     site of the LamB (maltoporin) channel of Escherichia coli. I. Effect on
     ion transport.

L4   ANSWER 3 OF 822  BIOSIS  COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI   Molecular characterization of the homo-phytochelatin synthase of soybean
     Glycine max. Relation to phytochelatin synthase.

L4   ANSWER 4 OF 822  BIOSIS  COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI   Human stefin B readily forms amyloid fibrils in vitro.

L4   ANSWER 5 OF 822  BIOSIS  COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI   Role of cysteine residues in structural stability and function
     of a transmembrane helix bundle.

L4   ANSWER 6 OF 822  BIOSIS  COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI   Hemoglobin Porto Alegre forms a tetramer of tetramers superstructure.

L4   ANSWER 7 OF 822  BIOSIS  COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI   Mechanisms of curcumin-induced apoptosis of Ehrlich's ascites carcinoma
     cells.
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L4 ANSWER 8 OF 822 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI Cuticular collagen synthesis by Ascaris suum during development from the third to fourth larval stage: Identification of a potential chemotherapeutic agent with a novel mechanism of action.

L4 ANSWER 9 OF 822 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI Monomeric solution structure of the prototypical 'C' chemokine lymphotactin.

L4 ANSWER 10 OF 822 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI Mitochondrial pathway of chemically-induced apoptosis.

=> d bib abs l1 1

L1 ANSWER 1 OF 703430 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AN 2002:318081 BIOSIS
DN PREV200200318081
TI A population of **oligodendrocytes** derived from multipotent neural precursor cells expresses a cholinergic phenotype in culture and responds to ciliary neurotrophic factor.
AU MacDonald, S. C.; Simcoff, R.; Jordan, L. M.; Dodd, J. G.; Cheng, K. W.; Hochman, S. (1)
CS (1) Emory University School of Medicine, 615 Michael St., 644 Whitehead Bldg., Atlanta, GA, 30322: shochman@physio.emory.edu USA
SO Journal of Neuroscience Research, (May 1, 2002) Vol. 68, No. 3, pp. 255-264. http://www.interscience.wiley.com/jpages/0360-4012/. print. ISSN: 0360-4012.
DT Article
LA English
AB Because **oligodendrocytes** and their precursors possess receptors for classical transmitters, and neurotransmitters such as glutamate and noradrenaline can mediate **oligodendroglial** proliferation and differentiation, it is possible that other neurotransmitters can also exert regulatory roles in **oligodendrocyte** function. We used mitogen-proliferated multipotent neuroepithelial precursors (neurospheres) and identified **oligodendroglia** that expressed markers traditionally found in cholinergic neurons. Regardless of culture conditions, there existed a large population of cells that resembled **oligodendrocytes** morphologically and coexpressed the **oligodendrocyte**-specific marker galactocerebroside (GalC) and the acetylcholine (ACh)-synthesizing enzyme choline acetyltransferase (ChAT). These cells did not express neuronal markers, and whole-cell recordings from cells with similar morphology displayed only outward currents in response to depolarizing voltage steps, further supporting their **oligodendroglial** identity. Another cholinergic marker, the vesicular ACh transporter, was also detected in GalC+ **oligodendrocytes**. Furthermore, neurospheres cultured in the presence of the cholinergic receptor antagonist atropine showed a decrease in the number of GalC+ spheres, implicating the muscarinic ACh receptor in **oligodendrocyte** development. The actions of neurotrophins and ciliary neurotrophic factor (CNTF) on these ChAT+ **oligodendrocytes** were examined. Among these, CNTF treatment significantly increased **oligodendrocytic** process outgrowth. These results demonstrate classical cholinergic neuronal markers in **oligodendrocytes** as well as an effect of muscarinic receptor blockade on **oligodendrocyte** differentiation.

=> d his

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     FILE 'BIOSIS, MEDLINE, SCISEARCH, CA' ENTERED AT 10:56:07 ON 05 JUN 2002
L1        703430 S APTAMER OR ANTISENSE OR OLIGO? OR RIBOZYME
L2        637632 S ANTIOXIDANT? OR ANTI-OXIDANT OR DESULFUR? OR DE-SULFUR? OR CY
L3       3053885 S PHAS? OR MULTIPHAS? OR MULTI-PHAS? OR BIPHAS? OR BI-PHAS?
L4           822 S L1 AND L2 AND L3

=> s l1 and l2
L5        14736 L1 AND L2

=> s l5 and l3
L6          822 L5 AND L3

=> s l6 and (antioxidant (5n) oligonucl?)
L7            7 L6 AND (ANTIOXIDANT (5N) OLIGONUCL?)

=> dup remove l7
PROCESSING COMPLETED FOR L7
L8            2 DUP REMOVE L7 (5 DUPLICATES REMOVED)

=> d l8 bib abs 1-2

L8   ANSWER 1 OF 2  BIOSIS  COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE 1
AN   1999:36308  BIOSIS
DN   PREV199900036308
TI   Angiotensin II-mediated expression of p27Kip1 and induction of cellular
     hypertrophy in renal tubular cells depend on the generation of oxygen
     radicals.
AU   Hannken, Tete; Schroeder, Regine; Stahl, Rolf A. K.; Wolf, Gunter (1)
CS   (1) Dep. Med., Div. Nephrol. Osteol., University Hosp. Eppendorf,
     Martinistr. 52, Pav. 61, D-20246 Hamburg Germany
SO   Kidney International, (Dec., 1998) Vol. 54, No. 6, pp. 1923-1933.
     ISSN: 0085-2538.
DT   Article
LA   English
AB   Background. Angiotensin II (Ang II) induces hypertrophy of cultured
     proximal tubular cells. We have previously demonstrated that this Ang
     II-mediated hypertrophy occurs in the G1-phase of the cell cycle
     and depends on the induction of p27Kip1, an inhibitor of G1-phase
     cyclin/cyclin-dependent kinase complexes. The present study was undertaken
     to investigate whether Ang II may stimulate superoxide anions (O2.)
     formation in cultured LLC-PK, and cultured mouse proximal tubule (MCT))
     cells, and to gain further insight into a potential relationship between
     O2. and cell cycle regulation. Methods. Reactive oxygen species were
     measured with the lucigenin method in intact cells. The effects of various
     inhibitors were tested on Ang II-induced O2. production. Cells were
     transiently transfected with phosphorothioate-modified rat p22phox
     antisense oligonucleotides to investigate the potential
     role of NAD(P)H oxidase. Expression of p22phox mRNA after An II-treatment
     was detected with Northern blots. Incorporation of (3H)leucine into de
     novo synthesized proteins was used as a parameter of cell hypertrophy.
     Expression of p27Kip1 was evaluated in cell lysates by Western blotting.
     Results. Ang II stimulated the accumulation of O2. in tubular cells;
     however, an addition of two different antioxidants completely
     abolished measurable O2.. This effect was transduced by angiotensin
     receptor type-1 (AT1) and was inhibited by a flavoprotein inhibitor (DIP)
     or p22phox antisense oligonucleotides, indicating the
     involvement of membrane NAD(P)H oxidase. Ang II-stimulated de novo protein
     synthesis was attenuated by DIP, antioxidants, and p22phox
     antisense oligonucleotides. The Ang II-induced
     expression of p27Kip1 protein and cellular hypertrophy were reduced by
     similar treatments. Generation of O2. by xanthine supplementation also
     stimulated p27Kip1 expression and induced hypertrophy in LLC-PK, cells.
     Conclusion. This study provides the first evidence, to our knowledge, that
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Ang II induces O2. in cultured tubular cells. Ang II-mediated activation of membrane bound NAD(P)H oxidase, probably by an increase in p22phox transcripts, is likely responsible for this induction. Generation of O2. subsequently induces p27Kip1 expression and stimulates hypertrophy, suggesting a novel mechanism of how Ang II can modulate cell cycle regulation.

L8 ANSWER 2 OF 2 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE 2
AN 1996:20994 BIOSIS
DN PREV199698593129
TI Activation of hepatic stellate cells by TGF-alpha and collage type I is mediated by oxidative stress through c-myb expression.
AU Lee, Kwan S.; Buck, Martina; Houglum, Karl; Chojkier, Mario (1)
CS (1) Dep. Med., University California San Diego, San Diego, CA 92161 USA
SO Journal of Clinical Investigation, (1995) Vol. 96, No. 5, pp. 2461-2468. ISSN: 0021-9738.
DT Article
LA English
AB Excessive production of collagen type I is a major contributor to hepatic fibrosis. Activated (myofibroblastic), but not quiescent, hepatic stellate cells (lipocytes) have a high level of collagen type I and alpha-smooth muscle actin expression. Therefore, stellate cell activation is a critical step in hepatic fibrosis. Here we show that quiescent stellate cells were activated by the generation of free radicals with ascorbate/FeSO-4 and by malondialdehyde, a product of lipid peroxidation. In addition, stellate cell activation by collagen type I matrix and TGF-alpha was blocked by **antioxidants**, such as d-alpha-tocopherol and butylated hydroxytoluene. Moreover, oxidative stress, TGF-alpha and collagen type I markedly stimulated stellate cell entry into S-**phase**, NFkB activity and c-myb expression, which were prevented by **antioxidants**. c-myb **antisense oligonucleotide** blocked the activation and proliferation of stellate cells induced by TGF-alpha. Nuclear extracts from activated, but not from quiescent, stellate cells formed a complex with the critical promoter E box of the alpha-smooth muscle actin gene, which was disrupted by c-myb and NFkB65 antibodies, and competed by c-myb and NFkB cognate DNA. c-Myb expression was also stimulated in activated stellate cells in carbon tetrachloride-induced hepatic injury and fibrogenesis. This study indicates that oxidative stress plays an essential role, through the induction of c-myb and NFkB, on stellate cell activation.

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=> d his

     (FILE 'HOME' ENTERED AT 10:55:29 ON 05 JUN 2002)

     FILE 'BIOSIS, MEDLINE, SCISEARCH, CA' ENTERED AT 10:56:07 ON 05 JUN 2002
L1       703430 S APTAMER OR ANTISENSE OR OLIGO? OR RIBOZYME
L2       637632 S ANTIOXIDANT? OR ANTI-OXIDANT OR DESULFUR? OR DE-SULFUR? OR CY
L3      3053885 S PHAS? OR MULTIPHAS? OR MULTI-PHAS? OR BIPHAS? OR BI-PHAS?
L4          822 S L1 AND L2 AND L3
L5        14736 S L1 AND L2
L6          822 S L5 AND L3
L7            7 S L6 AND (ANTIOXIDANT (5N) OLIGONUCL?)
L8            2 DUP REMOVE L7 (5 DUPLICATES REMOVED)

=> s l6 and aqueous and antioxidant
L9           18 L6 AND AQUEOUS AND ANTIOXIDANT

=> dup l9 remove
PROCESSING COMPLETED FOR L9
L10          13 DUP REMOVE L9 (5 DUPLICATES REMOVED)
```

=> d bib abs l10 1-13

L10 ANSWER 1 OF 13 CA COPYRIGHT 2002 ACS
AN 135:272223 CA
TI Encapsulation of food ingredients
IN Sanguansri, Luz; Augustin, Mary Ann
PA Australian Food Industry Science Centre, Australia; Commonwealth Scientific + Industrial Research Organisation
SO PCT Int. Appl., 43 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2001074175	A1	20011011	WO 2001-AU367	20010403

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRAI AU 2000-6663 A 20000404
AU 2000-8823 A 20000718

AB Oxygen sensitive oils or oils contg. oil sol. oxygen sensitive substances are encapsulated in proteins which have been reacted with carbohydrates that contain reducing sugar groups. An **aq**. mixt. of a protein, preferably casein, and a carbohydrate, preferably a sugar, is heated within the range of 60-160.degree.C so that Maillard reaction products (MRP) are formed in the **aq**. mixt. The oil **phase**, up to 50% by wt., is then emulsified with the **aq**. **phase** to form microencapsulated oil particles. The formation of MRP may also be done after emulsification prior to drying. The emulsions can be used as food ingredients or dried to form powders.

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 2 OF 13 CA COPYRIGHT 2002 ACS
AN 134:152943 CA
TI Interfacial compositions of cationic and mixed non-ionic micelles by chemical trapping: a new method for characterizing the properties of amphiphilic aggregates
AU Keiper, J.; Romsted, L. S.; Yao, J.; Soldi, V.
CS Department of Chemistry, Wright and Rieman Laboratories, The State University of New Jersey, Rutgers, New Brunswick, NJ, 08904, USA
SO Colloids and Surfaces, A: Physicochemical and Engineering Aspects (2001), 176(1), 53-67
CODEN: CPEAEH; ISSN: 0927-7757
PB Elsevier Science B.V.
DT Journal
LA English
AB A specially synthesized arenediazonium ion bound to amphiphilic aggregates decomps. spontaneously via rate detg. loss of N2 to give a highly reactive, unselective, aryl cation intermediate. This intermediate is trapped competitively by weakly basic nucleophiles in the interfacial region of aggregates such as micelles and other assocn. colloids. Product yields, analyzed by HPLC with UV detection, are used to est., simultaneously, the interfacial concns. of a no. of different nucleophiles, including water, that are commonly found at the surfaces of biomembranes and in many com. products. Two applications of the method

are discussed. First, it was shown that the interfacial concns. of X- (X=Br, Cl) increase steadily with increasing cetyltrimethylammonium halide (CTAX) and tetramethylammonium halide (TMAX) concns. and that the interfacial concns. of these counterions increase continuously with their **aq. phase** concns. at a const. degree of micelle ionization. Interfacial Br- and Cl- concns. also show marked increases at their resp. sphere-to-rod transitions. This steady increase in interfacial counterion concn. with increasing **aq.** counterion concn. contradicts a basic assumption of the pseudophase ion exchange (PIE) model of chem. reactivity in aggregates, i.e. that the total concns. of ions at aggregate interfaces is const. and independent of the amphiphile and salt concns. The consequences for the PIE model are discussed. Second, the chem. trapping reaction is used to est.: (a) distributions of terminal OH groups of non-ionic amphiphiles in mixed non-ionic micelles composed of amphiphiles with different lengths of **oligoethylene** oxide chains and (b) hydration nos. of the inner layers of interfacial region next to the hydrocarbon core in these mixed micelles. Terminal OH groups distributions are well fitted by a radial one-dimensional random walk model. The av. hydration no. for the inner layers at 40.degree.C is about 3, in agreement with ests. from NMR water (D2O) self-diffusion measurements and with the hydration no. of 3 for **aq.** solns. of polyethylene oxide. The results suggest that the hydration states of the ethylene oxide (EO) units near the micellar core are near their min. value. Recent and potential applications of the chem. trapping method are briefly discussed.

RE.CNT 98 THERE ARE 98 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 3 OF 13 CA COPYRIGHT 2002 ACS
AN 132:127736 CA
TI Cosmetic or pharmaceutical patches comprising a hydrocolloid in **aqueous phase** and an active ingredient
IN Gueret, Jean-Louis H.
PA L'Oreal, Fr.
SO Eur. Pat. Appl., 14 pp.
CODEN: EPXXDW
DT Patent
LA French
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 976396	A1	20000202	EP 1999-401579	19990624
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	FR 2781670	A1	20000204	FR 1998-9795	19980730
	FR 2781670	B1	20010907		
	US 2001007671	A1	20010712	US 1999-362680	19990729
	JP 2000080016	A2	20000321	JP 1999-216879	19990730
PRAI	FR 1998-9795	A	19980730		
	FR 1998-9794	A	19980730		
	FR 1998-9880	A	19980731		

AB Cosmetic or dermopharmaceutical patches comprising a hydrocolloid in **aq. phase** and an active ingredient are disclosed. In 180 g of water were dissolved gellan gum 3, xanthan gum 1, wheat germ 1, preservatives 0.2, orgasol 2, and lavender essential oil 0.15%. The compn. was then spread on a polyamide sheet to obtain the patch.

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 4 OF 13 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE 1
AN 2000:489729 BIOSIS
DN PREV200000489850

TI Influence of **oligomer** chain length on the **antioxidant** activity of procyanidins.

AU Lotito, Silvina B.; Actis-Goretta, Lucas; Renart, M. Lourdes; Caligiuri, Marina; Rein, Dietrich; Schmitz, Harold H.; Steinberg, Francene M.; Keen, Carl L.; Fraga, Cesar G. (1)

CS (1) Fisicoquimica, Facultad de Farmacia y Bioquimica, Junin 956, 1113, Buenos Aires Argentina

SO Biochemical and Biophysical Research Communications, (October 5, 2000) Vol. 276, No. 3, pp. 945-951. print.
ISSN: 0006-291X.

DT Article

LA English

SL English

AB The **antioxidant** activity of catechin monomers and procyanidin (dimers to hexamers) fractions purified from cocoa was studied in two in vitro systems: liposomes and human LDL. Liposome oxidation (evaluated as formation of 2-thiobarbituric acid reactive substances) was initiated with 2,2'-azobis (2-amidi-nopropane) hydrochloride (AAPH), 2,2'-azobis (2,4-dimethylvaleronitrile) (AMVN), iron/ascorbate, or UV-C; LDL oxidation (evaluated as formation of conjugated dienes) was initiated with Cu2+ or AAPH. Catechin monomers and procyanidin fractions inhibited both liposome and LDL oxidation. Monomers, dimers, and trimers fractions were the most effective **antioxidants** when liposome oxidation was initiated in the **aqueous phase**. When oxidation was initiated in the lipid domains, higher molecular weight procyanidins were the most effective. All fractions significantly inhibited Cu-mediated LDL oxidation; no significant effect of procyanidin molecular weight was observed. The hexamer fraction was the least effective with respect to preventing AAPH initiated LDL oxidation. Results reported herein give further evidence on the influence of the **oligomer** chain length on the **antioxidant** protection by procyanidins.

L10 ANSWER 5 OF 13 CA COPYRIGHT 2002 ACS

AN 132:331458 CA

TI Analysis of procyanidins

AU Rohr, G. E.; Meier, B.; Sticher, O.

CS Department of Pharmacy, Swiss Federal Institute of Technology (ETH), Zurich, Switz.

SO Studies in Natural Products Chemistry (2000), 21(Bioactive Natural Products (Part B)), 497-570
CODEN: SNPCE2

PB Elsevier Science B.V.

DT Journal; General Review

LA English

AB A review with 304 refs. The present knowledge on the qual. and quant. anal. of procyanidins is reviewed. Procyanidins belong to the class of natural products known as proanthocyanidins or condensed polyphenols. The instability of procyanidins should be considered throughout sample collection, storage and clean up procedures. Extns. are preferentially conducted using **aq**. acetone. Addn. of an **antioxidant** is recommended as long as it does not interfere with the anal. procedure. Conventional methods are mainly based on color reactions, of which only functional group assays exhibit specificity for proanthocyanidins. The dimethylaminocinnamaldehyde assay is gaining importance compared to the most widely used vanillin assay, because it is more specific, more sensitive and less subject to interferences. Individual procyanidins can only be assessed by chromatog. Reversed **phase** HPLC on C-18 stationary **phases** using acidic **aq**. methanol or acetonitrile as eluents is the procedure of choice. **Oligomeric** procyanidins do not elute according to their d.p. Polymers can not be chromatographed and hamper the most commonly used UV detection at 280 nm. Sample clean up procedures are inevitable because of these polymeric compds. and phenolic acids as well as flavonoids, which tend to coelute

with procyanidins. Liq. liq. extn. using Et acetate is not quant. Solid **phase** extn. over C-18, polyamide or Sephadex LH-20 are described in the literature, but none of these procedures is completely validated. More selective detection modes like electrochem. detection or mass spectrometry as well as derivatization procedures are discussed as possible alternatives to extensive sample clean up procedures.

RE.CNT 304 THERE ARE 304 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 6 OF 13 CA COPYRIGHT 2002 ACS
AN 131:309964 CA
TI Polyphenolic composition and antioxidative activity of apple flesh extracts
AU Hamauzu, Yasunori; Iijima, Etsuko
CS Fac. Agric., Shinshu Univ., 8304, Minami-minowa, Kami-ina, Nagano, 399-4598, Japan
SO Nippon Shokuhin Kagaku Kogaku Kaishi (1999), 46(10), 645-651
CODEN: NSKKEF; ISSN: 1341-027X
PB Nippon Shokuhin Kagaku Kogakkai
DT Journal
LA Japanese
AB The polyphenolic compn. and the antioxidative activity of an apple flesh ext. and its fractions toward linoleic acid peroxidn. in micelles of sodium dodecyl sulfate in buffer soln. was studied. The main phenolic compds. in fraction B extd. with ethylacetate from **aq**. sample soln. were chlorogenic acid, (+)-catechin, (-)-epicatechin, **oligomeric** procyanidins, and phloridzin, and in fraction A, which remained in the **aq**. **phase**, polymeric procyanidin was predominant. Catechins (monomeric forms) and procyanidins (**oligomeric** and polymeric forms), esp. polymeric procyanidin, were predominant polyphenolic compds. in apple flesh. The relationship between polyphenolic concn. and antioxidative activity of apple flesh ext. was almost same as that of std. (-)-epicatechin soln. In comparison between fraction A and B, the antioxidative activity of fraction B was slightly superior to that of fraction A. The free radical scavenging activity of dimeric and trimeric procyanidins measured with a diphenyl-p-picryl hydrazyl (DPPH) method was stronger than that of monomeric catechins, the same as the result of antioxidative activity in the SDS micellar system. The antioxidative activity of the fraction including polymeric procyanidin was lesser than that of catechins or dimeric and trimeric procyanidins, whereas the DPPH radical scavenging activity of this fraction was superior to catechins or dimeric and trimeric forms.

L10 ANSWER 7 OF 13 CA COPYRIGHT 2002 ACS
AN 131:144024 CA
TI Dietary fiber and phosphorylated **oligosaccharide** protect small intestinal mucosa of rat from oxidative damages in vitro
AU Kawaguchi, Makiko; Fujioka, Yuko; Kishimoto, Mikako; Matsuura, Toshiki; Ichikawa, Tomio
CS Dep. Food Sci. Nutr., Sch. Human Environ. Sci., Nishinomiya, 663-8558, Japan
SO Nippon Shokuhin Kagaku Kogaku Kaishi (1999), 46(7), 487-490
CODEN: NSKKEF; ISSN: 1341-027X
PB Nippon Shokuhin Kagaku Kogakkai
DT Journal
LA Japanese
AB This study has been done to clarify whether dietary fiber and phosphorylated **oligosaccharide** can depress lipid peroxidn. and maltase inactivation of rat small intestinal mucosa induced by 2,2'-azobis(2-amidinopropane)dihydrochloride (AAPH), a generator of free radical in **aq**. **phase**. Thiobarbituric acid reactive substances (TBARS) of small intestinal mucosa increased linearly by incubation with AAPH. Maltase activity decreased linearly by incubation

with AAPH. The increase of TBARS and the decrease in maltase activity were not obsd. in the presence of fibers, such as cellulose, pectin, and alginate or phosphorylated **oligosaccharide** (PO). Regardless of the incubation time with AAPH, apparent maltase activity was enhanced by the addn. of dietary fibers and PO. It needs further investigation to make clear how fibers and PO protect maltase against the oxidative stress.

L10 ANSWER 8 OF 13 MEDLINE DUPLICATE 2
AN 1999075393 MEDLINE
DN 99075393 PubMed ID: 9860050
TI **Antioxidant** properties of catechins and proanthocyanidins: effect of polymerisation, galloylation and glycosylation.
AU Plumb G W; De Pascual-Teresa S; Santos-Buelga C; Cheynier V; Williamson G
CS Biochemistry Department, Institute of Food Research, Norwich Research Park, Colney, UK.. geoff.plumb@bbsrc.ac.uk
SO FREE RADICAL RESEARCH, (1998 Oct) 29 (4) 351-8.
Journal code: BW3; 9423872. ISSN: 1071-5762.
CY Switzerland
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199902
ED Entered STN: 19990311
Last Updated on STN: 19990311
Entered Medline: 19990223
AB A range of catechins and **oligomeric** procyanidins was purified by high performance liquid chromatography (HPLC) from grape seed, apple skin, lentil and almond flesh. Catechins, galloylated epicatechin, glycosylated catechin, procyanidin dimers, galloylated dimers, trimer, and tetramer species were all identified, purified and quantified by HPLC, LC-MS and NMR. The **antioxidant** properties of these compounds were assessed using two methods: (a) inhibition of ascorbate/iron-induced peroxidation of phosphatidylcholine liposomes; (b) scavenging of the radical cation of 2,2'-azinobis(3-ethyl-benzothiazoline-6-sulphonate) (ABTS) relative to the water-soluble vitamin E analogue Trolox C (expressed as Trolox C equivalent **antioxidant** capacity, TEAC). **Antioxidant** activity in the lipid **phase** decreased with polymerisation in contrast with **antioxidant** action in the **aqueous phase** which increased from monomer to trimer and then decreased from trimer to tetramer. Galloylation of catechin and dimeric procyanidins decreased lipid **phase** and increased **aqueous phase antioxidant** activity. Glycosylation of catechin demonstrated decreased activity in both **phases**.

L10 ANSWER 9 OF 13 CA COPYRIGHT 2002 ACS
AN 127:248871 CA
TI **Oligomers** containing 2,2,6,6-tetramethyl-4-piperidyl groups and their manufacture as stabilizers for organic materials
IN Borzatta, Valerio; Guizzardi, Fabrizio
PA Ciba-Geigy A.-G., Switz.
SO Can. Pat. Appl., 97 pp.
CODEN: CPXXEB
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CA 2191832	AA	19970605	CA 1996-2191832	19961202
	TW 406104	B	20000921	TW 1996-85114185	19961119
	US 6046304	A	20000404	US 1996-756225	19961125
	EP 782994	A1	19970709	EP 1996-810823	19961126
	R: AT, BE, DE, ES, FR, GB, IT, NL, PT, SE				
	AU 9674142	A1	19970612	AU 1996-74142	19961127

	AU 718067	B2	20000406		
	ZA 9610131	A	19970604	ZA 1996-10131	19961203
	NO 9605150	A	19970605	NO 1996-5150	19961203
	CN 1165138	A	19971119	CN 1996-121514	19961203
	BR 9605826	A	19980901	BR 1996-5826	19961203
	JP 09216946	A2	19970819	JP 1996-338980	19961204
	US 6297299	B1	20011002	US 1999-433468	19991104
PRAI	EP 1995-810756	A	19951204		
	EP 1996-810053	A	19960129		
	EP 1996-810458	A	19960712		
	US 1996-756225	A3	19961125		

OS MARPAT 127:248871
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Polyamines with d.p. 3-15 having triazine groups in the backbone and the title groups as side chains are useful as heat and light stabilizers and **antioxidants** for org. materials, esp. synthetic polymers. Thus, adding a water soln. of 0.35 mol N-(2,2,6,6-tetramethyl-4-piperidinyl)butylamine slowly to 0.35 mol cyanuric chloride in 500 mL xylene at 0.degree., aging the mixt. an addnl. 1 h, aging the mixt. 2 h at room temp., cooling to 0.degree., adding 0.368 mol NaOH in water, aging 30 min at 0.degree. and 2 h at room temp., removing the **aq**. layer, adding 0.175 mol N,N'-bis (2,2,6,6-tetramethyl-4-piperidinyl)1,6-hexanediamine (I), heating 1 h at 50.degree., adding 0.35 mol K2CO3, heating 4 h at 60.degree., concg. the org. **phase** to remove 250 mL xylene, adding 0.35 mol I, heating 2 h at 150.degree., cooling, adding 0.35 mol NaOH, heating 4 h at 140.degree. while removing water by azeotropic distn., heating 4 h at 160.degree., cooling to 60.degree., dilg. with 300 mL xylene, filtering, washing with ethylene glycol, concg. at 60.degree./10 mbar, adding 0.147 mol 4,6-bis[N-(2,2,6,6-tetramethyl-4-piperidinyl)butylamino]-2-chloro-1,3,4-triazine, heating 3 h at 140.degree. in the presence of 0.147 mol NaOH while water was removed by azeotropic distn., heating 4 h at 160.degree., adding 0.147 mol NaOH, heating 2 h at 160.degree., cooling to 60.degree., dilg. with 300 mL xylene, and concg. at 140.degree./1 mbar gave the polyamine II with no.-av. mol. wt. 3360.

L10 ANSWER 10 OF 13 CA COPYRIGHT 2002 ACS
AN 115:239719 CA
TI Fluorocarbon emulsions containing amino acid-based anti-inflammatory agents and buffer systems
IN Long, David M., Jr.
PA Alliance Pharmaceutical, Inc., USA
SO PCT Int. Appl., 55 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 7

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9104664	A1	19910418	WO 1990-US5650	19900926
	W: AU, CA, JP				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, IT, LU, NL, SE				
	AU 8939649	A1	19910117	AU 1989-39649	19890705
	US 5284645	A	19940208	US 1989-417796	19891004
	AU 9065496	A1	19910428	AU 1990-65496	19900926
	AU 648757	B2	19940505		
	EP 494974	A1	19920722	EP 1990-915673	19900926

R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE

	JP 05502857	T2	19930520	JP 1990-514542	19900926
	JP 3164115	B2	20010508		
PRAI	US 1989-417796	A	19891004		
	US 1987-82846	A2	19870805		
	WO 1989-US2948	A	19890705		
	WO 1990-US5650	A	19900926		

AB An emulsion for enhancement of therapeutical effects of the emulsions or promote their stability comprises (1) an **aq. phase**, (2) a fluorocarbon, (3) an emulsifying agent, and (4) .gtoreq.1 anti-inflammatory agent which is imidazole or its derivs. An emulsion contained perfluorooctyl bromide 100, egg yolk phospholipid 4.5, mannitol 0.4, NaCl 0.25, d-.alpha.-tocopheryl acetate 0.05, Na2CaEDTA 0.04, imidazole 0.1-0.3, histidine 0.1, and water to 100% wt./vol. Rabbits were given intrahepatic inoculation of VX-2 tumor cells and after 18 days they were administered 10 mL of the above emulsion/kg and rectal temp. was examd. The rectal temp. of 9 out of 11 rabbits did not exceed 0.5.degree. above the baseline temp.

L10 ANSWER 11 OF 13 CA COPYRIGHT 2002 ACS
AN 115:158712 CA
TI Process for removal of nonreacted hydroxyarenes and lower alkylhydroxyarenes from alkylation mixtures
IN Cukrovany, Dusan; Lishak, Pavol; Cervenka, Zdenek; Zlacky, Alojz; Hyska, Karal; Pavlovcik, Milan
PA Czech.
SO Czech., 3 pp.
CODEN: CZXXA9
DT Patent
LA Slovak
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI CS 269595	B1	19900411	CS 1988-4222	19880617

AB Removal of nonreacted reaction components by various distn. techniques from alkylation mixts. in manufg. of alkylhydroxyarenes as **antioxidants** for polymers by alkylation of hydroxyarenes with alkenes or **oligoolefins** usually generates unwanted product discoloration. This was reduced by the title process comprising desorption of nonreacted hydroxyarenes and low mol wt. alkylhydroxyarenes from alkylation mixts. by steam and/or an inert gas at 383-453.degree.K. Thus, 3.5 mL/min of an alkylate contg. 3.9 wt.% free 2,6-xylenol and 12.31 wt.% alkylated 2,6-xylenol was injected at the top of a steam-desorption column at 413.degree.K and bubbled by a counterstream of a mixt. of 9-10 g/min steam (413.degree.K) and 0.2 L/min N which was introduced at the bottom of the column. The vapors were condensed and the condensate sepd. into liq. **phases**. The org. **phase** comprised 62 wt.% 2,6-xylenol (total) and the lower alkene fractions which were used for the alkylation, and the total **aq. phase** contained 0.53 wt.% 2,6-xylenol. The product which was collected at the rate of 3.1 mL/min at the bottom of the column contained 0.02 wt.% free 2,6-xylenol and 9.7 wt.% alkylated 2,6-xylenol, and had a discoloration intensity of <500 Hazen discoloration units.

L10 ANSWER 12 OF 13 CA COPYRIGHT 2002 ACS
AN 110:174932 CA
TI Purification and separation of mixtures of 1,2-dihydroquinoline derivatives and their polymers as **antioxidants**
IN Kawala, Zdzislaw; Kramkowski, Ryszard; Kaplon, Jacek; Majewski, Wojciech; Majewski, Janusz; Kolodko, Michal; Serwatka, Jerzy
PA Politechnika Wroclawska, Pol.
SO Pol., 6 pp.
CODEN: POXXA7

DT Patent
LA Polish
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	PL 142703	B2	19871130	PL 1985-251530	19850111

AB Polymers of 1,2-dihydroquinoline derivs. are sepd. from unreacted monomers, arom. amines, and water by steam distn. in vacuo at 373-453 K/400-4000 Pa. The sepd. mixt. of water, arom. amines, and monomers is heated at 323-353 K to sep. the org. and **aq. phases.** The 1,2-dihydroquinoline derivs. and their polymers are useful as **antioxidants** for rubbers. Thus, 100 kg mixt. of 1,2-dihydro-2,2,4-trimethylquinoline (I) 40, I polymer 55, aniline 1, and water-C6H6-acetone mixt. 4% was steam distd. at 443 K/2660 Pa. The distillate contg. I, aniline, C6H6, acetone, and water was heated to 333 K for **phase** sepn. The resulting org. **phase** (44 kg) contained I polymer 3.7, I 37.3, aniline 1, and C6H6 2 kg. The remaining residue (55 kg) contained 95% I polymer (mainly dimer and trimer) and 5% I.

L10 ANSWER 13 OF 13 CA COPYRIGHT 2002 ACS
AN 89:11961 CA
TI **Multiphase** cosmetic emulsions
IN Fukuda, Hidenori
PA Lion Dentifrice Co., Ltd., Japan
SO Japan. Kokai, 17 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 53031578	A2	19780324	JP 1976-106487	19760906
	JP 58006530	B4	19830204		
	GB 1541463	A	19790228	GB 1976-41457	19761006
	FR 2326914	A1	19770506	FR 1976-30845	19761008
	FR 2326914	B1	19790601		
	US 4254105	A	19810303	US 1978-922905	19780710
PRAI	JP 1975-122717		19751011		
	JP 1976-106487		19760906		
	US 1976-731253		19761012		

AB **Multiphase** cosmetic emulsions are prepd. by dispersion of oily substances in mixts. of hydrophobic-hydrophilic emulsifying agents and **aq.** solns. of sugars (monosaccharides, **oligosaccharides,** sugar alcs.) to form water/oil/water-type prepns. Sugars such as maltose [69-79-4], lactose [63-42-3] and sucrose [57-50-1] can be used. Thus, water/oil-type emulsions contg. liq. paraffin 28.5, olive oil 15, UV-absorbing agents 3.0, sorbitan monooleate 3.0, glucose [50-99-7] 1.5, and distd. H2O 49.0% and proper amts. of perfumes were mixed with solns. contg. polyoxyethylene sorbitan monostearate [9005-67-8] (0.5%), distd. H2O (59.8%), **antioxidants,** and preservatives to form a water/oil/water-type suntan lotion.

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FULL ESTIMATED COST	98.95	99.16

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-6.49	-6.49

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